ON THE AVIFAUNA OF THE UPPER PATIA VALLEY, SOUTHWESTERN COLOMBIA

by

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ABSTRACT

The bird fauna of the isolated arid Andean valley of the upper río Patia, southwestern Colombia, resembles that of the Cauca Valley to the north. The most prominent faunal element are widely distributed nonforest birds of the Tropical Zone which entered the Andean valleys of Colombia from the Caribbean lowlands to the north. The relations between the upper Patía fauna and the nonforest fauna of western Ecuador to the south are very restricted (e.g. *Veniliornis callonotus*). Montane species of the Upper Tropical Subtropical Zone that inhabit the upper Patía Valley include the antshrike *Thamnophilus multistriatus*, the nightingale-thrush *Catharus aurantiirostris,* the warbler *Basileuterus culicivorus* and others.

Some of the Patía populations differ from conspecific Cauca Valley populations by paler plumage coloration reflecting the arid climate of the restricted mountain valley of the upper río Patía, especially those of *Forpus conspicillatus* and *Catharus aurantiirostris*. However, these differences together with the clinal nature of the geographical variation do not warrant taxonomic recognition as separate subspecies.

INTRODUCTION

Deep tropical valleys separate the northern Andean cordilleras of Colombia. The climate of these valleys is comparatively dry, as the humidity is caught by the surrounding mountains ; the vegetation is correspondingly sparse and often xerophytic. Such valleys are the large upper Magdalena Valley between the Eastern and Central Andes, the upper Patía Valley and portions of the Cauca Valley located between the Colombian Central and Western Andes.

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CHAPMAN (1917) and HAFFER (1967) discussed some aspects of the avifauna of these arid "pockets" in the generally humid northern Andes and MILLER (1947, 1952) gave a detailed account of the birds inhabiting the upper Magdalena Valley. However, the avifauna of the isolated upper Patía Valley remained poorly known. Goodfellow and Hamilton travelled through this area in 1898 and collected birds which, unfortunately, were later lost in Ecuador (GOODFELLOW 1901: 303-305; CHAPMAN 1917: 18, 651). Chapman's collectors did not enter this part of Colombia and the valley remained unexplored zoologically ("our plan to this end miscarried", CHAPMAN 1917: 651). Only Kjell von Sneidern made a small collection of birds in the upper Patía Valley for the Academy of Natural Sciences, Philadelphia. Based on this material MEYER DE SCHAUENSEE (1948-1952) included locality records for various species in his catalogue of the birds of Colombia. LEHMANN (1957, 1960) published some notes on the occurrence of ducks and birds of prey, and WALLACE (1958) on North American migrants in the area of Popayán and the upper Patía Valley. However, no article treats the entire bird fauna of the upper río Patía Valley or reports details of environmental conditions.

I visited the upper Patía Valley in September 1964 and returned to this area in November 1965 when I collected a total of 156 bird specimens there. Most of this material has been deposited at the Zoologische Staatssammlung, München, Germany. 26 specimens were given to the American Museum of Natural History, New York. Specimens of several species not represented in the collection of the Instituto de Ciencias Naturales, Universidad Nacional, Bogotá, were given to that institution. MR. F. C. LEHMANN V. (Cali, deceased) also made a small collection of birds in the upper Patía Valley during the month of December 1965. This material belongs to the Museo Departamental de Historia Natural, Cali, Colombia. A portion of Lehmann's material and critical specimens collected by myself were examined by the late Dr. EUGENE EISENMANN at the American Museum of Natural History, New York. Shortly after our independent fieldwork in 1965, Mr. LEHMANN and I had planned to combine our data in a joint publication (already referred to as "in press" by HAFFER 1967: 323, 330, 333). However, due to various delays and Lehmann's illness this plan did not materialize.

TOPOGRAPHY

The upper Patía Valley is approximately 120 kilometers long and 20 kilometers wide (Fig. 1). It is located between the Western and Central Andes of Colombia which close the valley in the south. To the north, the high plains of Popayán (1750 m elevation) separate the Patía and Cauca Valleys. The Cuchilla de Tambo forms the divide between the waters of the Cauca River which flows north into the río Magdalena and the Caribbean

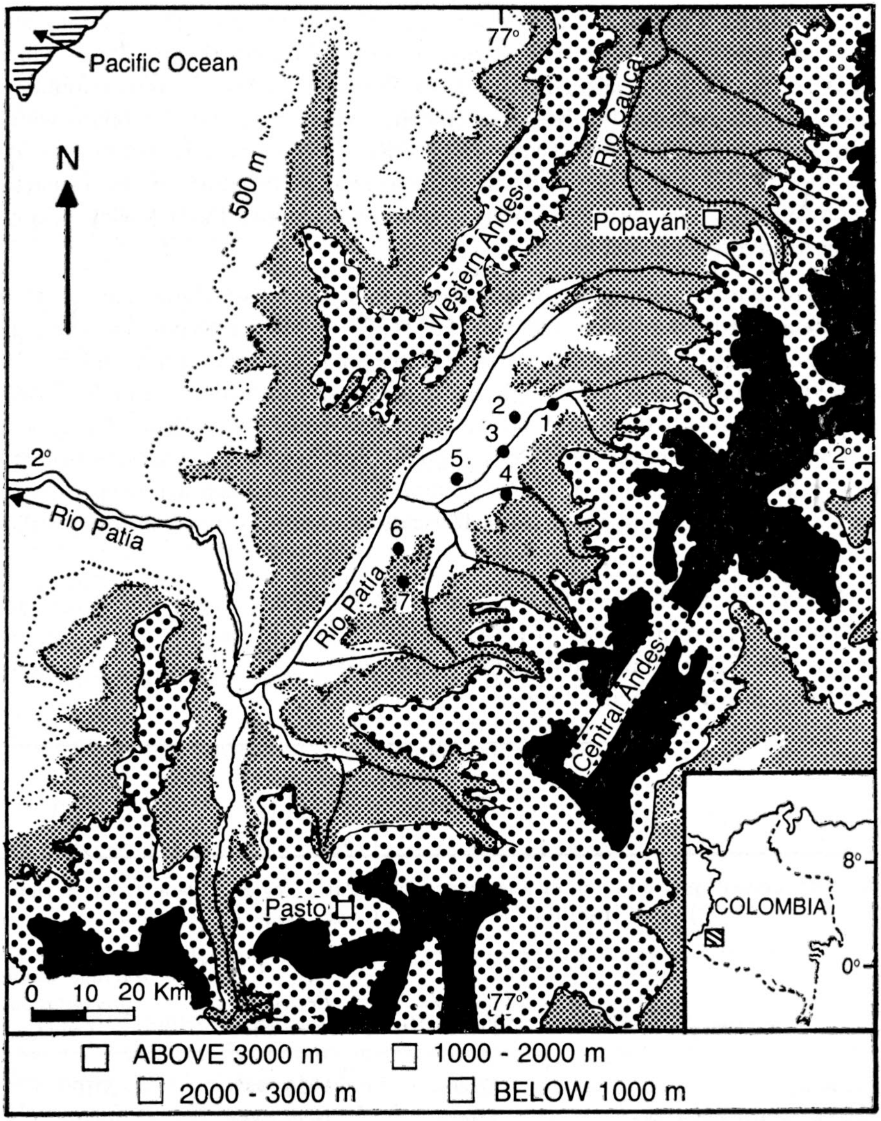
Pacific Ocean
77°
N
500 m
Rio Cauca
Western Andes
Popayán
2°
Rio Patía
1
2
3
4
5
6
7
Rio Patía
Central Andes
Pasto
0 10 20 Km
77°
8°
COLOMBIA
0°
ABOVE 3000 m
1000 - 2000 m
2000 - 3000 m
BELOW 1000 m

FIGURA 1. Map of the upper Patía Valley in southwestern Colombia. Adapted from the Mapa Físico Político de Colombia (Instituto Geográfico de Colombia "Agustín Codazzi", 1961). Collecting stations are: 1 Río Guachicono, 2 El Bordo, 3 Hacienda Guachicono, 4 Río San Jorge, 5 El Estrecho, 6 Mojarras, 7 Mercaderes.

Sea and those of the Patía River which, after cutting across the Western Andes (Patía Canyon), empties into the Pacific Ocean. The Timbío and Quilcasé Rivers join their waters east of Rosas to form the río Patía which flows south along the eastern base of the Western Andes. Eastern tributaries of the Patía River are the Ríos Guachicono, San Jorge, and Sambingo which join their waters near the village of Dos Ríos. Other eastern tributaries are the Ríos Mayo, Juanambú and Guaitaca located in territory of the Departamento Nariño. The major northern portion of the upper Patía Valley belongs to the Departamento del Cauca.

Low lying open plains form the center of the upper Patía Valley. They are about 4 to 5 km wide and located at 550 to 600 m above sea level. To the east, rugged hills consist of steeply dipping Tertiary strata and rise to 800-900 m (Fig. 2-5). The high mesa plains of Mercaderes and El Bordo have and elevation of 1000-1200 m and are formed by horizontal layers of tuff and gravel covering the steeply dipping Tertiary rock formations beneath. The valleys of the southern rivers Juanambú and Guaitaca are deep canyons which leave little room for a tropical avifauna along the narrow rocky valley floor.

Near the southern end of the upper Patía Valley, the Patía River cuts across the Western Andes in a spectacular deep canyon, the Patía canyon, and reaches the humid and densely forested Pacific lowlands, eventually emptying into the Pacific Ocean.

TABLE 1

Average annual precipitation in the upper Río Patía region. Data from SCHMIDT (1952) and Instituto Geográfico Militar, Bogotá, Colombia.

Station	*Elevation (m)*	*Period of observation*	*Average annual precipitation (mm)*
Popayán	1760	1926-1935	2010
Balboa, Municipio Patía	1500	1954-1960	2686
El Hoyo, Río Patía; 10 km northwest of El Bordo	700	1950-1954	2378
Dos ríos, Municipio Patía	581	1961, 1962	812, 1489
Pasto	2594	1924-1934, 1936	718

CLIMATE

The climate of the upper Patia Valley is characterized by a pronounced dry season (verano) from June to September and a shorter dry season (veranillo) in February and March. The rainy season (invierno) culminates in October and November. Rainfall measurements indicate a total annual precipitation of over 2000 mm for the northern portion of the valley (Popayán, Balboa, El Hoyo; see Table 1). This annual total decreases appreciably southward in the center of the Patía Valley where no more than 800 to 1500 mm have been recorded at Dos Rios (Table 1).

SCHMIDT (1952) and WEST (1957) indicate for the upper Patía Valley and average annual rainfall of 1500-2000 mm. This estimate probably is too high, at least for the central portion of the valley which probably receives less than 1000 mm of rain per year.

VEGETATION

The vegetation of the upper Patía Valley probably consisted originally of dry thickets and open deciduous woods. These disappeared from most parts of the valley and have been replaced by artificial savannas and cultivated fields. Secondary forest and woodland as wells as thickets grow along creeks and portions of some valleys, e.g. Río Guachicono and flanks of the Mesa de Mercaderes. The rocky slopes of hilly terrain are usually covered with sparse vegetation of scattered bushes. The mesas of El Bordo and Mercaderes form gently undulating grass plains, which are extremely dry in summer but muddy and wet during winter when frequent rains fall. It may be noted that cacti are absent from most parts of the Patía Valley and only grow interspersed in thorny thickets of some deeply incised dry canyons, e.g. río San Jorge.

GENERAL ASPECTS OF THE AVIFAUNA

The bird fauna of the upper Patía Valley is closely related to that of the Cauca Valley to the north; nearly all species which reached the Cauca Valley from the Caribbean lowlands have also advanced further south into the Patía Valley (HAFFER 1967). The barrier effect of the Popayán plains has been only minor.

The most prominent element of the Patía fauna are bird species of wide distribution in open nonforest regions of the Tropical Zone: Eleven species of tyrantflycatchers (Tyrannidae); six finches of the genera *Sporophila, Oryzoborus, Volatinia;* the cuckoos *Crotophaga ani* and *Tapera naevia;* the woodpecker *Veniliornis callonotus;* the gnatcatcher *Polioptila plumbea;* the

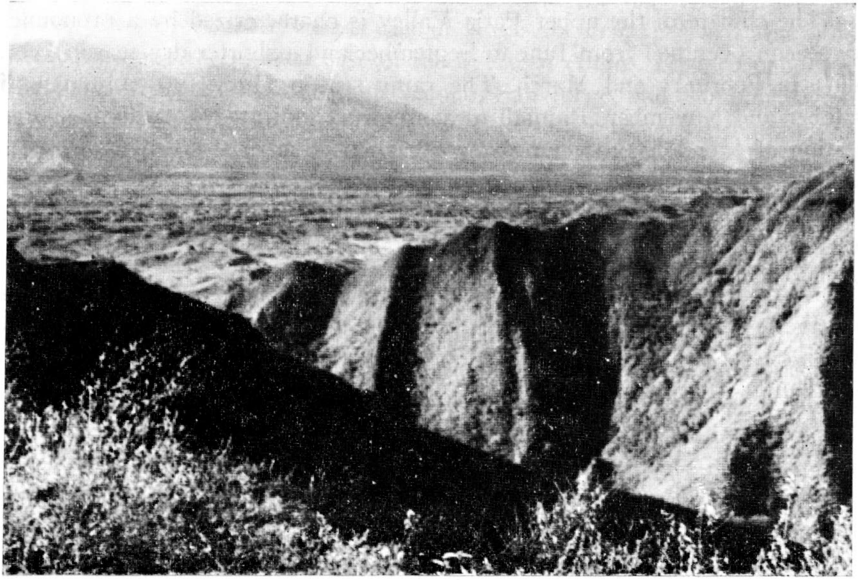

FIGURA 2. View over the upper Patía Valley toward the Western Andes (left background) from the road north of Mercaderes. Canyon of Quebrada Mojarras in foreground.

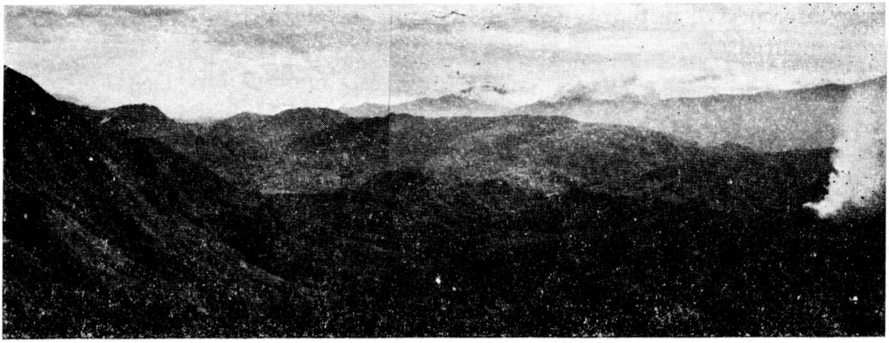

FIGURA 3. Upper Patía Valley west of Mercaderes; Western Andes to the right.

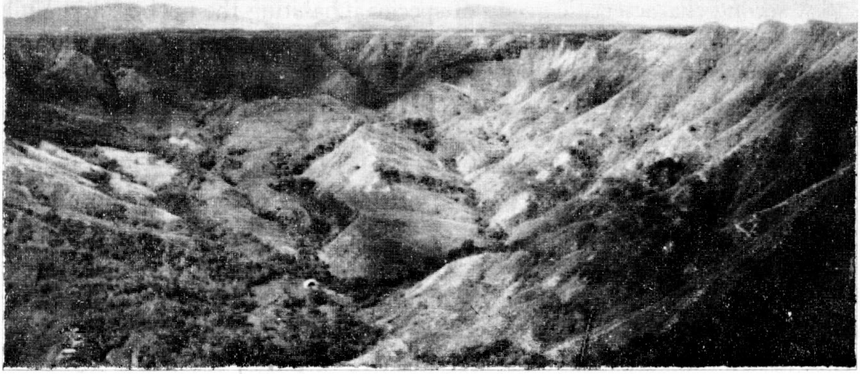

FIGURA 4. Upper Patía Valley near Mercaderes.

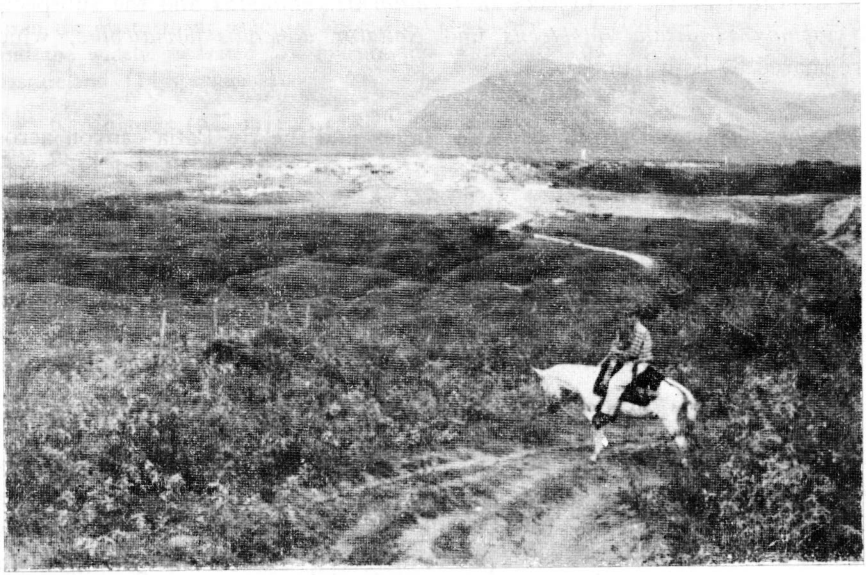

FIGURA 5. Plateau of Mercaderes in upper Patía Valley; foothills of Central Andes in background.

doves *Zenaida* and *Columbigallina;* the Bobwhite *Colinus cristatus.* These species entered unforested Andean valleys from the surrounding lowlands, often ranging up into subtropical elevations. Some of them may have reached the Patía Valley only recently due to forest clearing in the upper Cauca Valley and on the Popayán plains, as is known in the case of the recent southward advance of the Red-breasted Blackbird *Leistes militaris.*

A second characteristic group of species inhabiting the upper Patía Valley are montane birds restricted to Upper Tropical - Subtropical levels: The antshrike *Thamnophilus multistriatus,* the jay *Cyanocorax yncas,* the nightingale thrush *Catharus aurantiirostris,* the warbler *Basileuterus culicivorus,* the euphonia *Euphonia musica,* and the tanager *Tangara vitriolina.*

Some of the populations of the foregoing species inhabiting the Patia Valley differ from the populations of the Cauca Valley by paler coloration reflecting the more arid climate of the restricted mountain valley. However, the differences seem to me insufficient to warrant taxonomic recognition as new subspecies (see the discussion especially under *Forpus conspicillatus* and *Catharus aurantiirostris*).

Very restricted zoogeographic relations between the nonforest fauna of western Ecuador - northwestern Perú and that of southwestern Colombia are indicated by the occurrence of *Veniliornis callonotus* and the subspecies *Myiopagis viridicata implacens* and *Saltator albicollis flavidicollis,* which are shared by both faunas.

The deeply incised upper Patía Valley and the río Patía canyon across the Western Andes represent effective barriers of the dispersal of several bird species of montane forests at higher elevations. The following species of birds inhabiting the Western Andes of Colombia do not cross the Patía canyon southward and are missing from the montane forests of western Ecuador: *Aburria aburri, Andigena nigrirostris, Aulacorhynchus prasinus, Momotus momota aequatorialis, Xiphorhynchus triangularis, Conopias cinchoneti, Knipolegus poecilurus, Myiarchus cephalotes, Cinnycerthia peruana, Cacicus leucorhamphus, Cnemoscopus rubrirostris.* Conversely, the toucan *Andigena laminirostris* is restricted to the region south of the Patía canyon. CHAPMAN (1926: 84-85) already emphasized that some of the Colombian species mentioned above are missing from western Ecuador but he knew "of no existing influences which should prevent their entrance into western Ecuador". *Vuilleumier* (1969, 1977) discussed the influence of the Patía Valley and Patía Canyon on the geographic differentiation of several species of the montane flower-piercers *Diglossa* and a number of other birds.

LIST OF LOCALITIES

I list below my collecting stations in the upper Patía Valley (Fig. 1) which are all located in the Departamento del Cauca. Elevations of the villages were obtained from the Instituto Geográfico Militar, Bogotá; elevations of other localities have been measured with a pocket altimeter. The bird collection comprises a total of 156 specimens.

1. *Río Guachicono* (700 m): Eigth specimens were collected 8 km northeast of El Bordo, where the floor of the Guachicono Valley is covered with extensive pastures and thickets, 2 to 3 m high, along the river banks.

2. *El Bordo* (988 m): A village located on the Meseta de El Bordo which rises to 1200 m elevation northward. The vegetation consists of extensive pasture land and scattered thickets. Birds were collected at the base of the Meseta, 2 km west of El Bordo, at 700 m elevation where hills and narrow valleys are covered with dense thickets and low secondary woodland along creeks (37 specimens). The collecting station *Corrales* of K. von Sneidern and F. C. Lehmann is located several kilometers west of El Bordo.

3. *Hacienda Guachicono* (650 m): Pastureland along the río Guachicono. F. C. Lehmann V. (Cali) collected birds at this locality.

4. *Río San Jorge* (700 m): 55 specimens were collected near the bridge of the road from El Bordo to Bolivar. The alluvial plains of the San Jorge Valley are about 300 to 400 m wide and covered with thorny thickets interspersed with cacti. Only scattered bushes grow on the surrounding steep mountain slopes.

5. *El Estrecho* (615 m): A cluster of houses where the trail to Olaya departs from the Pasto road; near the lower río Guachicono. The plains west of El Estrecho and the widely separated low hills in this central part of the Patía Valley are dry pastureland (14 specimens).

6. *Mojarras* (622 m): A small village on the road to Pasto and located at the base of the steep flank of the Meseta de Mercaderes. 16 specimens were collected along the narrow valley of the Quebrada Mojarras where some scattered thickets and low dry woods occur. Dry pastures cover the steep slopes of the hills on both sides of the valley (figura 2).

7. *Mercaderes* (1156 m): A large village located on an extensive Meseta; the latter is covered with wide grass plains and scattered thickets in low lying areas (figura 5). 26 specimens were collected in this region.

ANNOTATED LIST

Bird specimens listed below were collected between 8 and 18 November 1965 unless mentioned otherwise. The size of the larger testicle is given for males, e.g. ♂ (6 x 3 mm) and the diameter of the largest follicle for females, e.g. ♀ (3 mm). The time of my visit to the upper Patía Valley included the beginning of the breeding season of most species. The majority of the birds collected were in breeding condition; young birds, however, had not left the nests yet except in *Pyrocephalus saturatus* and *Saltator albicollis*. The rainy season had started in early October 1965 after an exceedingly long dry season from May to September. During my fieldwork in November thundershowers occurred almost every night. It seems obvious that the rains in October had triggered the start of breeding activity in most birds of the upper Patía Valley.

Crypturellus soui subsp.: The characteristic song of the Little Tinamou was often heard from dense thickets east of El Bordo at 700 m elevation. Unfortunately we did not obtain specimens to determine the subspecific identity of the Patía population.

Theristicus c. caudatus (Boddaert): A rather widespread ibis in southwestern Colombia; three birds in flight over the Meseta de Mercaderes.

Tachybaptus dominicus (L.): WALLACE (1958) observed grebes of this species with their doyny young on February 4, 1956 at a secluded lake near Galindez in the upper Patía Valley.

Anas discors subsp.: Mercaderes 1 - (♀), November 18. Also observed in the upper Patía Valley by WALLACE (1958).

Oxyura dominica (L.): LEHMANN (1957: 115) reported this species from the Patía Valley; I have no additional records.

Marganetta armata columbiana Des Murs: Recorded from the río Guachicono by NICÉFORO & OLIVARES (1964).

Vultur gryphus L.: The Andean Condor has been observed by LEHMANN (1957: 117) at low elevations in the Patía Valley, e. g. near El Hoyo, Corrales and at other localities. The same author reported a male which had been collected at Quilcasé. The Condor is (or has been) widespread at high elevations in the Central Andes and may have reached the tropical center of the Patía Valley by following the valleys of the río Timbío or río Quilcasé.

Sarcoramphus papa (L.): LEHMANN (1957: 117) observed three individuals of the King Vulture near Corrales and felt they may have reached the upper Patía Valley by following the río Patía upstream from the Pacific lowlands.

Coragyps atratus brasiliensis (Bonaparte): Common in all villages of the region.

Cathartes aura jota (Molina): Frequently seen in various parts of the valley.

Cathartes b. burrovianus Cassin: The Lesser Yellow-headed Vulture was observed by LEHMANN (1957: 118) at Corrales, west of El Bordo.

Buteo magnirostris ecuadoriensis (Swann): El Estrecho 1o. Also seen near El Bordo and Mercaderes.

Parabuteo unicinctus harrisi (Audubon): An occupied nest was found near Olaya (LEHMANN 1960: 261).

Milvago chimachima: Widespread and common; observed near El Bordo, Estrecho, and Mercaderes. MEYER DE SCHAUENSEE (1948-1952: 408) mentioned this species *(M. c. cordatus)* from Mojarras.

Caracara plancus cheriway (Jacquin): A pair on the Meseta de Mercaderes on November 16; not rare in the region according to local inhabitants

Falco femoralis pichinchae Champman: I saw a pair in the collection of Mr. L. OROZCO, Popayán which he had collected near Olaya on October 23, 1965. MEYER DE SCHAUENSEE (1948-1952: 1155) listed this species from Corrales, west of El Bordo.

Falco sparverius caucae Chapman: Mercaderes 1 ♂ (3 x 2 mm); flanks strongly marked and pileum dark gray. Widespread in the region; additional sight records along the Pasto road near El Bordo, Estrecho and Mercaderes.

Penelope montagnii Subsp.: 1 ♀ (?), near El Estrecho, September 15, 1963 (Museo de Historia Natural, Popayán). I examined the above specimen but did not obtain further information of this guan in the upper Patía Valley, where it may occur at scattered localities along the higher mountain slopes.

Colinus cristatus badius Conover: Common in the Patía Valley.

Gallinula chloropus: Observed at a small pond, 5 km north of Mojarras.

Jacana jacana: Observed at the same pond north of Mojarras.

Belonopterus c. cayenensis (Gmelin): A pair on the Meseta de Mercaderes.

Pluvialis d. dominica (Müller): Mercaderes 1 ♀, 1 — (November 17).

Columba fasciata albilinea Bonaparte: A flock of 50 birds was observed in a forested valley of the Meseta de Mercaderes at 1000 m elevation; possibly wandering birds from the higher mountain slopes.

Columba cayenensis tamboensis Conover: Common in the area, where we observed it near El Bordo, Estrecho, and Mercaderes.

MEYER DE SCHAUENSEE (1948-1952: 457) mentioned this form from Mojarras and the río Patía. A specimen in the collection of the Instituto de Ciencias Naturales, Bogotá is from Pedregal, río Patía (coll. KJELL VON SNEIDERN).

Zenaida auriculata caucae ≤ *hypoleuca:* San Jorge 1 ♂ (16 x 7 mm), Mojarras 1 ♂, Patía —. Common in the upper Patía Valley. My specimens are intermediate between *caucae* and *hypoleuca* of Ecuador, being paler below than *caucae* and deeper toned than *hypoleuca*. The bird from Patía is paler and has almost white undertail coverst (with only a faint tinge of pale buff basally). On the other hand, three females from Mercaderes and three others from Palo de Leche, río Patía (Instituto de Ciencias Naturales, Bogotá) are somewhat more deeply colord and similar to birds collected near Popayán and Cali *(caucae)*.

Columbigallina passerina nana (Todd): El bordo 1 ♂ (10 x 5 mm), Mojarras 1 ♂ (11 x 6 mm), Mercaderes 1 ♂ (9 x 5 mm). Common in the upper Patía Valley; also recorded from Mojarras and río Patía by Meyer de Schauensee (1948-1952: 461).

Columbigallina talpacoti caucae (Chapman): Meyer de Schauensee (1948-1952: 462) mentioned this species from the río Patía, río Timbío, and Mojarras.

Claravis pretiosa (Ferrari-Pérez): Mercaderes 1 ♂ (11 x 5 mm). Frequently seen around El Bordo and Mercaderes in dense thickets growing in low areas of the Mesetas.

Leptotila verreauxi decolor (Salvin): El Bordo 1 ♂ (17 x 9.5 mm), Mercaderes 1 ♂ (16 x 6 mm). Common in the upper Patía Valley. The two males essentially agree with a series of eight specimnes from the region of Popayyán in the collection of the Instituto de Ciencias Naturales, Bogotá. However, the throat in the Patía birds is more extensively and purer white and the upperparts are somewhat grayer.

Aratinga w. wagleri (Gray): *Estrecho* 1 ♂ (13 x 7 mm). Common in the upper Patía Valley, where we saw groups of 4 to 20 birds daily in the late afternoon. The species breeds in inaccesible eliffs of the Mesetas (Lehmann 1960). I found a small colony in the steep bank of the río Guachicono near El Estrecho.

Forpus conspicillatus subsp.: Mojarras 1 ♂ (7 x 4 mm; wing 81.5, tail 39.5, bill 12.5 mm), El Estrecho 2 ♂, río Guachicono 1 ♂, río San Jorge 1 ♂, 1 ♀. This species is rather commonly observed in flocks throughout the upper Patía Valley. Whereas the green color of the body plumage of birds from this area agrees with that of the populations *(caucae)* inhabiting the Cauca Valley to the north, the blue color of the wings as well as of the lower back and rump is lighter (Spectrum Blue), less purplish (Blue Violet) than in *caucae*. This is also true for the blue color of the eye ring the latter being conspicuously reduced below the eye. One specimen from the arid upper

Dagua Valley to the west of Cali (preserved in the American Museum of Natural History, AMNH (107292) agrees closely with the upper Patía birds in the paler blue color of wings and lower back. The geographical variation in the shade of blue plumage color appears to be clinal, with birds becoming paler as one proceeds south up the Cauca Valley, and paler still as one crosses further south into the arid upper Patía Valley and west into the arid upper Dagua Valley. In the color of the blue portions of the plumage the populations *(caucae)* of the Cauca Valley are generally intermediate between the darker blue birds of nominate *conspicillatus* and the paler blue birds of the arid valleys of western Colombia (Eisenmann, pers. comm.). I hesitate formally to describe these latter populations as a new polytopic subspecies, although shortly after our fieldwork F.C. Lehmann and I had planned to do so. The name *F. c. pallescens* used by HAFFER (1697: 330) and M*üller* (1973: 33) to designate the populations of the upper Patía Valley thus will remain a *nomen nudum*. BORRERO & HERNÁNDEZ (1961) discussed the geographical variation of *Forpus conspicillatus* in the eastern part of Colombia.

Piaya cayana subsp.: Observed in thickets west of El Bordo.

Tapera n. naevia (L.): Observed repeatedly near El Bordo and Mercaderes. MEYER DE SCAHUENSEE (1948-1952: 495) recorded the nominate form from Mojarras.

Crotophaga ani L.: Very common in the entire region.

Streptoprogne zonaris subsp.: Several groups of this swift circled over the Meseta de Mercaderes on November 16.

Cypseloides rutilus subsp.: A small flock seen near Mercaderes on November 16.

Anthracothorax n. nigricollis (Vieillot): One pair seen near Mercaderes.

Chlorostilbon mellisugus pumilus Gould: El Bordo 1 ♂ (2.5 x 2 mm), 2 —; río San Jorge 1 ♂ (1 x 0.5 mm), Mercaderes 1 ♂ (2 x 1.5 mm). Quite common in the thickets of the valley during the time of our visit. Although not reported previously from this part of Colombia, this hummingbird appears to be a conspicuous member of the bird fauna.

Hylocharis g. grayi (Delattre & Bourcier): Mojarras 1 ♂ (3 x 2 mm).

Amazilia s. saucerottei (Delattre & Bourcier): Río San Jorge 1 ♂ (3 x 2 mm), 1 —, Mojarras 1 ♂ 2.5 x 1.5 mm). Recorded previously from Mojarras by MEYER DE SCHAUENSEE (1951).

Heliomaster longirostris stuartae Lawrence: El Bordo 1 ♀ (2 mm).

Megaceryle t. torquata (L.): One pair along the río San Jorge. The collections of the Instituto de Ciencias Naturales, Bogotá include two specimens from Palo de Leche, upper río Patía.

Picumnus granadensis Lafresnaye: Listed from Mojarras by MEYER DE SCHAUENSEE (1948-1952: 644); we did not encounter this piculet.

Dryocopus lineatus nuperus Peters: El Bordo 1 ♂ (2 x 1 mm). Also seen near El Estrecho. Our specimen as well as four others taken from Palo de Leche, upper río Patía (Instituto de Ciencias Naturales, Bogotá) are referred to *D. l. nuperus* because of the dark black color of the upperparts including the rhachis of remiges and rectrices. However, the color of lower breast and abdomen is similar to examples of *D. l. fuscipennis* of the Pacific lowlands rather than white as in typical specimens of *D. l. nuperus.*

Veniliornis c. callonotus (Waterh.): Mojarras 1 ♂ (2 x 1 mm); deposited at the Instituto de Ciencias Naturales, Universidad Nacional, Bogotá. The reference to the occurrence of this species in Colombia (MEYER DE SCHAUENSEE, 1966: 226) is based on the above specimen. F. C. Lehmann (pers. comm.) obtained an additional male near Mojarras in December 1965. These specimens, the first from Colombia, look essentially like examples of the nominate subspecies from northwestern Ecuador. The Scarlet-backed Woodpecker may have entered Colombia along deforested portions of the Ecuadorian Andes in recent decades.

Synallaxis albescens insignis Zimmer: El Bordo 2 ♂ (6 x 5, 6 x 4 mm), río San Jorge 2 ♂ (9 x 5, 9 x 5 mm), 1 ♀ (14 mm), 1 —. Common in dense thickets. Also recorded by Meyer de Schauensee (1948-1952: 670) from Mojarras.

Synallaxis brachyura caucae Chapman: El Bordo 1 ♂ (4 x 2 mm), río San Jorge 1 ♂ (8 x 5 mm), Mercaderes 1 ♀ (2 mm).

Thamnophilus multistriatus brachyurus Todd: El Bordo 1 ♂ (4 x 2 mm), 1 ♀ (1 mm), río San Jorge 2 ♂ (5 x 2.5, 4 x 2 mm). Common in dense thickets. The specimens collected are quite typical of this subspecies in the length of the tail (♂ 64, 65, 61.5 mm; ♀ 67 mm) and the barring of the underparts, although the underparts are slightly paler than in birds from the region of Popayán.

Sayornis nigricans subsp.: Observed once along the rocky río San Jorge (700 m above sea level).

Pyrocephalus saturatus piurae Zimmer: río San Jorge 2 ♂ (9 x 5, 8 x 5 mm), 1 ♀ (1 mm), Estrecho 1 ♀ (0.5 mm), Mojarras 1 — (imm.). Very common in the entire region.

Muscivora tyrannus monachus (Hartlaub): Mercaderes 2 ♀ (17 and 10 mm!). Breeds on the Meseta de Mercaderes, where we observed several additional pairs. A bird was also seen near El Estrecho in the lowest part of the Patía Valley.

Tyrannus m. melancholicus Vieillot: El Bordo 1 ♂ (14 x 7 mm). Common along roads, in thickets and villages of the region.

Myiozetetes cayanensis hellmayri Hartert & Goodson: El Bordo 1 ♂ (9 x 5 mm). Widespread and common.

Myiarchus apicalis Sclater & Salvin: El Bordo 1 ♂ (10 x 4.5 mm), 1 ♀ (1.5 mm Only encountered near El Bordo. Additional localities are Mojarras and río Patía (MEYER DE SCHAUENSEE 1948-1952: 827).

Myiophobus f. fasciatus (Müller): Río San Jorge 3 ♀ (4, 2, and 1 mm). Inhabits thickets along river valleys where we found it at 1 or 1.5 meters above the ground. The coloration of our specimens agrees with a long series from the interior of Colombia (Dep. Cundinamarca and Boyacá).

Todirostrum c. cinereum L.: Río San Jorge 5 ♂ (6.5 x 3, 6 x 3.5, 5 x 3.5, 5 x 3, 5 x 3 mm). Common in the region.

Elaenia f. flavogaster (Thunberg): río San Jorge 1 ♀ (1.5 mm), Estrecho 2 ♀ (8 and 2 mm), Mojarras 1 ♂ (10.5 x 6 mm).

Myiopagis viridicata implacens (Sclater): El Bordo 1 ♂ (6 x 3.5 mm). Meyer de Schauensee (1948-1952: 860) referred the Patía population of this species to the Ecuadorian subspecies *implacens*.

Phaeomyias murina incomta (Cabanis & Heine): El Bordo 1 ♂ (5 x 3.5 mm), 2 ♀ (1.5 mm), río San Jorge 3 ♂ (6.5 x 3.5, 5 x 3, 5 x 3 mm), Estrecho 1 ♂ (6 x 3.5 mm), 1 ♀ (2 mm), Mojarras 1 ♀ (3 mm). Common in thickets.

Empidonax virescens subsp.: WALLACE (1958) collected one specimen of this flycatcher in the upper Patía Valley on February 5, 1956.

Camptostoma obsoletum caucae Chapman: El Bordo 1 —. This specimen shows clearly the characters of the subspecies (pileum dark gray contrasting with the grayish olive back, throat and breast light gray, abdomen very pale yellow).

Notiochelidon cyanoleuca subsp.: A flock in the village of Mercaderes.

Stelgidopteryx ruficollis uropygialis (Lawrence): Mercaderes 1 ♀ (0.5 mm). Frequently seen in various parts of the upper Patía Valley.

Cyanocorax yncas subsp.: Observed near El Bordo, west of Mercaderes and along the río Mayo at 700 - 1000 m elevation Also reported from Mojarras by Meyer de Schauensee (1948-1952: 883) who referred birds from southwestern Colombia to the nominate subspecies.

Troglodytes aedon striatulus (Lafresnaye): Río San Jorge 2 ♂ (8 x5, 6 x 5 mm), Mercaderes 1 ♂ 8.5 x 5 mm). These specimens are similar to material from the Cali and Popayán regions.

Mimus gilvus tolimensis Ridgway: Estrecho 1 ♂ (11 x 6 mm). Commonly seen on the Mesetas de El Bordo and Mercaderes as well as on the valley floor west of El Estrecho.

Turdus ignobilis goodfellowi Hartert & Hellmayr: El Bordo 1 ♂ (13 x 9 mm), río San Jorge 1 ♂ (12 x 6 mm). These birds agree in color with a series from the Cali region. The species is widespread in woodland and tall thickets around El Bordo, along the río San Jorge, and on the Meseta de Mercaderes.

Catharus ustulatus swainsoni (Tschudi): El Bordo 2 —, río San Jorge 2 —, Mercaderes 1 —. A frequent winter visitor. Walace (1958) observed this species in the area of Popayán and at El Bordo.

Catharus aurantiirostris phaeopleurus Sclater & Salvin: Río San Jorge 3 ♂ (9.5 x 6, 7.5 x 4, 11 x 5.5 mm; wing (flat) 79.5, 80.5, 83 mm; tail 63.5, 62, 65 mm; bill 15.8, 15.5, 15.5 mm); 1 ♀ río Guachicono (wing 78, tail 60, bill 15.5 mm). One male specimen of this material has been deposited at the American Museum of Natural History, New York. This nightingale-thrush inhabits dense thickets along the river valleys where it was not rare at the time of my visit but difficult to observe. The abrupt and loud song was often heard from dense cover low above the ground. The males hand enlarged testes and breeding apparently had started. Wallace (1965) made a detailed life history study of this species in the area of Popayán, to the north of the Patía Valley, where he found this bird along partially wooded ravines, steep hillsides covered with shrubs, in clumps of bushes on open pastureland, and in shrubbery around orchards. Some birds even inhabit the outskirts of villages and city parks.

Taxonomically, the western Colombian populations of *C. aurantiirostris* inhabiting the Cauca and Patía Valleys *(phaeopleurus)* belong to the Middle American gray-headed group *(griseiceps)*, whereas the cap is brown concolor with the back in the brown-headed group *(aurantiirostris)* of northern Venezuela and Trinidad. The populations of the slopes of the Eastern Andes of Colombia and of the upper Magdalena Valley are somewhat intermediate between the gray-headed and the brown-headed groups thus supporting the specific union of these two groups (Zimmer 1944). It would be interesting to learn details about the relations between the gray-headed and brown-headed groups in Colombia. Do they differ in song, eggs, nests, habitat preferences and soft part colors, or is head color a reflection of habitat and climate rather than of intimate relationship?

The birds from the upper Patía Valley are paler in plumage color compared to specimens from the Cauca - Popayán area to the north (typical *phaeopleurus*) reflecting the more arid climate and open vegetation in the upper Patía Valley. However, this variation in plumage color probably is clinal and naming a new subspecies for the Patía population is not considered advisable under presently applied taxonomic principles. The birds from the río San Jorge in the upper Patía Valley differ from specimens taken in the Cauca Valley by having paler underparts which are purer and more extensively white, the breast band is more restricted and lighter in color; the upper head and bank are also paler, pale gran and light olive brown, respectively. However, fresh specimens of typical *phaeopleurus* would be needed for comparison, as older specimens may have turned brown above from foxing (*E. Eisenmann*, pers. comm.) One specimen from Popayán (AMNH 109934), in the plateau country between the Cauca and Patía Valleys, is intermediate between the pale breasted birds from the upper Patía and typical *phaepleurus* from the Cauca Valley. Birds from the upper Patía Valley may also be slightly smaller in average measurements than those from the valleys to the north as indicated by several specimens from Popayán: 2 ♂ measure wing 83, 83 mm, tail 65.5, 68.8 mm, bill 16, 17mm; 2 ♀ measure wing 83, 85 mm, tail 65, 67 mm bill 16.5, 16 mm.

Polioptila plumbea daguae Chapman: Río San Jorge 1 ♂ (4 x 2.5 mm), 1 ♀ (1 mm), Mojarras 1 ♂ (5 x 3 mm), 1 ♀ (3 mm), 1-, Mercaderes 1 ♀ mm). The characters of *P. P. daguae,* are well marked in these specimens: Darker gray upperparts than in *plumbeiceps* and *anteocularis* and almost entirely white lateral retrices. Measurements; wing ♂ 49.5-50.5; ♀ 48-95.5; tail ♂ 46-46.8; ♀ 45-47 mm. Meyer de Schauensee had already recorded this subspecies from the río Patía (1948-1852: 927).

Vireo olivaceus caucae (Chapman): El Bordo 1 ♂ (9 x 7 mm), río San Jorge 2 ♂ (9 x 6, 7.5 x 5 mm), Estrecho 1 ♀ (2 mm).

Basileuterus culicivorus occultus Zimmer: El Bordo 1 ♂ (9 x 6 mm), 2 ♀ (1.5 mm), río Mayo 1 ♂ (6 x 5 mm). These specimens are slightly clearer yellow underneath than birds from the Eastern Andes and the undertail coverts are pale yellow rather than white. We encountered this warbler frequently along creeks bordered by forest or tall thickets and in the coffee forest of the río Mayo Valley.

Dendroica petechia subsp.: Wallace (1958) observed one bird, probably of the North American *aestiva* group, in El Bordo on January 14, 1956.

Euphonia musica pelzelni (Sclater): El Bordo 1 ♂ (6.5 x 4.5 mm), 1 ♀ (1.5 mm), Guachocono 1 ♂. Underparts and rump lemon yellow rather than orange or tawny yellow as in *E. m. intermedia* from the Eastern Andes.

Tangara vitriolina (Cabanis): El Bordo 1 ♂ (8 x 5 mm), 1 ♀ (2.5 mm), río San Jorge 1 ♀ (5 mm), Mojarras 1 ♂ (8 x 5 mm). Quite common in thickets and scrub. For the use of Cabanis's name rather than *T. ruficapilla* (Sclater) see MEYER DE SCHAUENSEE (1966: 474).

Thraupis episcopus quaesita Bangs & Noble: Río San Jorge 1 ♂ (2.5 x 1.5 mm), 2 ♀ (2.5 mm). These specimens are darker gray above and the head is light gray rather than whitish as in *T. e. cana;* the blue area of the wing is bright blue.

Ramphocelus f. flammigerus (Jardin & Selby): Rio San Jorge 1 ♂ (11 x 7 mm). Encountered in dense thickets along the río San Jorge, Mayo and west of Mercaderes and El Bordo.

Tachyphonus rufus (Boddaert): El Bordo 2 ♂ (11 x 7, 8 x 5 mm), 1 ♀ (4 mm), río San Jorge 1 ♂ (11.5 x 8 mm), Mojarras 1 ♂ (10 x 6.5 mm), Estrecho 1 ♀ (8 mm). Common in the upper Patía Valley.

Pheucticus ludovicianus subsp.: WALLACE (1958) observed a male in full plumage of this North American species at El Bordo on January 15, 1956.

Psarocolius decumanus melanterus (Todd): Seen several times near El Bordo and Mercaderes but no nesting trees found. Additional localities for this subspecies are Mojarras and río Patía, Palo de Leche (MEYER DE SCHAUENSEE 1948-1952: 987).

Scaphidura o. oryzivora (Gmelin): Observed near El Bordo. The collections at the Instituto de Ciencias Naturales, Bogotá contain a specimen of this form from Corrales west of El Bordo.

Icterus chrysater subsp.: One pair observed in the Mayo Valley near the bridge of the Pasto road.

Agelaius icterocephalus subsp.: Observed at a small pond 5 km north of Mojarras, where this species probably breeds.

Leistes m. militaris (L.): Mercaderes 1 ♂ (10 x 5 mm). The male in breeding condition was accompanied by his female. The Red-breasted Blackbird occupied the upper Patía Valley from the north in recent years, as discussed by LEHMANN (1960: 273).

Saltator albicollis flavidicollis Sclater: El Bordo 2 ♂ (12 x 7, 11 x 7 mm), 2 ♀ (1 and 1.5 mm), río San Jorge 1 ♂ (11 x 7 mm), 1 — (imm.), Estrecho 1 ♂ (9 x 6 mm), Mercaderes 1 — (imm.). Common in dense thickets. In these specimens, the gray back is slightly washed with olive and the pure white underparts distinguish *S. a. flavidicollis* from *striatipectus* which occupies most of Colombia. The breast is heavily streaked in all Patía birds.

Cyanocompsa cyanea caucae Chapman: Río San Jorge 1 ♂ (11 x 7 mm). Also seen in deep valleys west of Mercaderes.

Sporophila o. obscura (Lafresnaye & d'Orbigny): Río San Jorge 2 ♂ (7 x 6 mm); deposited at the American Museum of Natural History, New York. F. C. Lehmann (pers. comm.) collected additional birds of this species at the río Guachicono. Our specimens from the upper Patía Valley as well as the material of this species collected by J. I. BORRERO in the middle Magdalena Valley have been erroneously referred to *Tiaris fuliginosa* (BORRERO *et al.* 1961; MEYER DE SCHAUENSEE 1966: 505). The correct allocation of these specimens is with the species currently called *Sporophila obscura,* a grayish brown finch inhabiting brushy open regions at tropical and subtropical elevations. *"Sporophila" obscura* may eventually be transferred to the genus *Tiaris,* as indicated by its bill shape, domed nest, and its song which resemble that of *Tiaris bicolor* (SCHWARTZ 1972 and PAYNTER 1970, p. 141, footnote).

Sporophila intermedia subsp.: El Bordo 1 ♂ (7 x 6 mm). The subspecific identity of the Patía population remains open until more material will become available. The gray of the plumage in our single male is paler than in *S. i. intermedia* and *bogotensis* and, in this respect, resembles *S. i. agustini.* However, the white spots on the sides of the throat are inconspicuous.

Sporophila n. nigricollis (Vieillot): El Bordo 1 ♂ (5 x 3 mm), Mojarras 1 ♂ (6.5 x 5 mm), Mercaderes 1 ♂ (6 x 5 mm), río San Jorge 2 ♀ (1 and 1 mm). Common throughout the Patía Valley.

Sporophila m. minuta (L.): El Bordo 1 ♂ (6 x 4 mm), Mojarras 1 ♀ (2 mm), Mercaderes 1 ♀ (2 mm). Common throughout.

Oryzoborus crassirostris occidentalis Sclater: El Bordo 1 ♀ (7 x 5 mm). Only encountered in the thickets west of El Bordo.

Volatinia jacarina splendens (Vieillot): Estrecho 1 ♂ (6 x 5 mm). Common throughout the region in open pastureland.

Spinus psaltria columbianus Lafresnaye: Meseta de Mercaderes 2 ♂ (3.5 x 2.5, 5.5 x 4.5 mm), 1 ♀ (9 and 7 mm follicles). This species obviously breeds in the Patía Valley.

Sicalis citrina browni Bangs: Meseta de Mercaderes 1 ♂ (6 x 5 mm). Deposited at the Instituto de Ciencias Naturales, Universidad Nacional, Bogotá. This species was previously known in Colombia only from the Sierra Nevada de Santa Marta and the northern part of the Central and Eastern Andes.

Myospiza humeralis subsp.: Mercaderes ♂ (10.5 x 6 mm). The black markings of the upperparts, especially on the back, are more pronounced than in *M. h. columbiana and M. h. humeralis*. Inhabits low thickets in the grassland of the Meseta de Mercaderes where I observed this species and of the Meseta de El Bordo (Corrales) where F.C. Lehmann, pers. comm., obtained one male and two females.

Zonotrichia capensis costaricensis Allan: Río San Jorge 1 ♂ (11 x 6 mm), 2 ♀ (2 and 5 mm), Mojarras 1 ♂ (8 x 6 mm), Mercaderes 1 ♀ (1 mm; incubating). Although these specimens are somewhat paler throughout than material from the Central Andes, the observed differences are insufficient to warrant taxonomic recognition.

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